AIN service control point (SCP).

REMARKS

Claims 21-37, 39-43; and 45-61 are pending.

Pages 6 and 7 of the specification have been amended for consistency with the figures. It is believed that the figures are now consistent with the numerals in the passages on pages 7, 10-13 identified by the Examiner.

The Information Disclosure Statement ("IDS") executed on December 21, 1999 conforms to 37 CFR 1.98(a)(1). The disclosed patent documents and publications were submitted in application 09/911,036 from which the present application claims priority under 35 USC 120. Therefore, it is submitted copies need not be provided. Consideration of the references made of record in the IDS is therefore respectfully requested.

Allowance of claims 50-55 is acknowledged, with thanks.

Claim 31 has been amended to replace "said specified subscriber line" with "said specified telephone line", for which antecedent may be found in claim 29.

Claims 37 and 40 have been amended for clarity. Claims 38 and 44 have been cancelled. Consequential amendments have been made to claims 39 and 45.

The Examiner has rejected independent claims 21, and 29 under 35 USC 102 as being anticipated by U.S. Patent No. 5,805,587 to Norris ("Norris"). The Examiner has likewise rejected dependent claims 22-28; 30-34 in view of Norris. The applicants respectfully disagree.

Specifically, Norris fails to disclose receiving a signaling message from a signaling network generated in response to said incoming call, and received prior to establishment of a call path for the incoming call, as claimed in independent claim 21; nor a network interface operable to receive signaling messages prior to establishment of associated call paths on the traffic carrying telephony network, as claimed in independent claim 29. Instead, Norris routes the incoming call to the IAS of Norris via an ISDN B (bearer) and D (data) channel (see column 5, line 48 – column 6, line 15). ISDN B channels carry traffic, and define a call path on a traffic carrying network. Signaling messages are passed as call paths are established. No signaling messages appear to be received prior to establishment of call paths. Norris therefore does not disclose each and every element of claim 21 or 29, and therefore cannot anticipate these claims. Withdrawal of rejection of claims 21-34 in view of Norris is therefore respectfully requested. Withdrawal of the rejection of claims 35 (dependent on claim 34) is similarly respectfully requested.

The Examiner has further rejected independent claim 36 under 35 USC 103 in view of Norris and U.S. Patent No. 5,884,262 to Wise ("Wise"). Again, the applicants respectfully disagree.

In order reject claims under 35 USC 103, the Examiner must establish that all claim elements exist in the art and a motivation to combine the art to arrive at the claimed invention at the date the invention was made. Here, the Examiner takes the position that Norris discloses internet call notification (and therefore a first interface for receipt of a message over a signaling message, and a second interface for dispatch of an indicator of a call by way of a data network, as claimed in claim 36). The Examiner, further takes the position that as the advanced intelligent network was known (as, for example evidenced by Wise) it would have been obvious to incorporate use of the AIN in Norris to arrive at the claimed invention, as benefits of the AIN were known at the time the invention was made.

Applicants do not dispute that the AIN is known (this is for example further evidenced by U.S. Patent No. 5,533,106 to Blumhart ("Blumhart")). However, the Applicants do dispute that at the date the invention was made, knowledge of the existence of AIN and Norris would have lead a person of ordinary skill to use AIN to effect the dispatch of signaling messages over a data network, as claimed. Any such suggestion, it is submitted, is made with impermissible hindsight.

Specifically, as evidenced by Wise and Blumhart, the AIN is used to effect signaling and call completion over the telephone signaling network. It primarily allows benefits in conjunction with signaling provided to the PSTN, for call handling. As such, Blumhart uses the AIN to control call disposition; Wise uses AIN to provide Internet type access to callers. Internet call notification devices, as disclosed by Norris, on the other hand primary receive signaling from the PSTN. This is further evidenced by U.S. Patent No. 5,809,128 to McMullin ("McMullin") and U.S. Patent No. 5,982,774 to Foldare ("Foldare").

Further, internet call notification appears to be have been provided in co-operation with an internet access provider (IAP), or a separate server. At the date the invention was made, PSTN signaling messages were easily provided from the PSTN to the IAP or separate server using other existing technologies, such as existing call busy/no answer forwarding features disclosed by Norris, McMullin and Foldare. Use of AIN signaling, that required some modification to the PSTN network appeared unnecessary, in view of the ability to use the existing technologies. Indeed, it is submitted that, adapting the telephone network to primarily provide signaling messages from the PSTN using AIN for dispatch of data network notification (e.g. internet notification) messages, without establishing corresponding voice carrying PSTN channels was, at the date the invention was made (i.e. on or before Aug. 14, 1996), a radical departure from what is suggested by Norris. AIN signaling provides benefits to the PSTN operator in the delivery of internet notification – voice channels are not unnecessarily established. Providers of internet notification, such as Norris, appeared to have had little motivation to improve PSTN

operation. As such, benefits provided in internet call notification through use of AIN would not have been recognized by a person of ordinary skill, on the date the invention was made. In view of other existing technologies, they would not have been motivated to combine internet call notification with AIN. The Examiner's suggestion that persons of ordinary skill would have been so motivated, it is submitted, uses impermissible hindsight found in the present application. Withdrawal of the rejection of claim 36 and those dependent thereon is therefore respectfully requested.

Independent claim 40 has been amended to clarify that the first network interface connects the processing element with an advanced intelligent network (AIN) signaling network. Claim 37 has been amended to clarify that AIN signaling is used to dispatch a signal in response to an incoming call directed to a specified subscriber telephone line in use to connect a data terminal. For the reasons set out above in relation to claim 36, it is submitted that amended claims 37 and 40 is neither anticipated nor rendered obvious by the applied art. Allowance of these claims 37 and 40 and those dependent thereon is therefore respectfully requested.

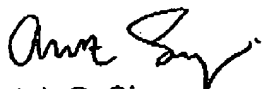
New claims 56-61 are presented for consideration by the Examiner. It is believed that these claims, too, are in condition for allowance.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned "Version with markings to show changes made".

No new matter has been added by this amendment.

In view of the foregoing, favorable reconsideration and allowance of the present application are earnestly solicited.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

-- Referring to Fig. 1 there is provided a view of the network components and interfaces required by this method. The network components are grouped into four (4) domains, i.e., the PSTN domain, the DASP domain, the Voice Message Service – Service Provider (VMS-SP) domain and the Customer Premise Equipment (CPE) domain. The PSTN domain network components are the SS7-capable telecommunication switches, [labelled] labeled Service Switching Point [(SST)] SSP [1, 2, 3], the Public Switched Telephone Network, [labelled] labeled PSTN [[5]] [7] the PSTN Gateway Agent, [labelled] labeled GA [19] and the PSTN gateway, [labelled] labeled PSTN-G [4]. The DASP domain network components are the DASP gateway, [labelled] labeled DASP-G [[7]] [6] and the DASP data network [[6]] [5]. The VMS-P[[11]] [14] and the VMS gateway, [labelled] labeled VMS-G [[12]] [5]. For conciseness, the VMS gateway [5] is shown as being port of the VMS-SP domain. However, depending on the implementation, the VMS gateway [5] component may be outside of the VMS-SP domain and may be part of the PSTN domain. The CPE domain components are the caller's telephone [[10]] [15], the DASP subscriber's telephone [[9]] [17] and computer [[8]] [16] and the CPE gateway, [labelled] labeled CPE-G[18]. --

31. (amended) The notification server of claim 30, wherein said processor is further operable to dispatch a signaling message to said signaling network to establish a path on said traffic carrying telephony network between said caller and said specified [subscriber] telephone line, in response to receiving said call disposition response [message].

37.(amended) A switching point, within [a] an advanced intelligent network (AIN) telephony signaling network, said signaling network for carrying signaling information relevant to the establishment of call paths on a traffic carrying telephony network, said switching point operable to dispatch [a signal] an AIN termination attempt

message on said signaling network in response to an incoming call directed to a specified subscriber telephone line in use to connect a data terminal to a data network using said traffic carrying telephony network, [said signal dispatched prior to establishing a path for said incoming call on said traffic carrying network] to a telephony network gateway in communication with a data network gateway, said data network gateway operable to dispatch a data message from said over said data network to said data terminal, as a consequence of said AIN termination attempt message.

39.(amended) The switching point of claim [38] 37, wherein said switching point is operable to generate said [signal] AIN termination attempt message in response to an AIN termination attempt trigger generated at said switching point.

40.(amended) A processing element for interconnection with a communications signaling network carrying signals relevant to establishing call paths on a traffic carrying telephone network, said processing element comprising:

a first interface for connecting said processing element with [said] an advanced intelligent network (AIN) signaling network in communication with a switch on said traffic carrying telephone network;

a second interface for connecting said processing element with a data network gateway for dispatching data messages on a data network;

said processing element operable to dispatch a first message to said data network gateway by way of said second interface in response to receiving [a signal] an AIN signaling message by way of said first interface, said signal indicative of an incoming call to a specified telephone subscriber line in-use connecting a data terminal to said data network by way of said traffic carrying telephone network.

45.(amended) The processing element of claim [44] 40, wherein said [signal] AIN signaling message comprises an AIN call termination attempt message.

56.(new) In a switched telephone network comprising:

a first switch;

a first signal switching point associated with said first switch;

a second switch;

a second signal switching point associated with said second switch;

a processing element in communication with said second signal switching point;

said first signal switching point, said second signal switching point and said processing element interconnecting in a telephony signaling network;

a method of dispatching a message indicative of an incoming call, originating with a caller interconnected with said first switch to a subscriber line interconnected with said second switch, to a terminal in communication with a data network, said method comprising:

a. receiving a first signaling message from said first signaling point at said second signaling point;

b. in response to said first signaling message, dispatching a second signaling message from said second signaling point to said processing element;

c. in response to said second signaling message, dispatching a third signaling message from said processing element to said data network gateway;

d. in response to said third signaling message, dispatching a data message from said network gateway over said data network to said data terminal.

57.(new) The method of claim 56, wherein said signaling network comprises an intelligent network, and wherein said second signaling message comprises a termination attempt message.

58.(new) The method of claim 57, wherein said second signaling message is dispatched prior to establishing a call path to said second switch for said incoming

call.

59.(new) The method of claim 58, wherein said second signaling comprises a telephone dial number identifying said subscriber line.

60.(new) The method of claim 56, wherein said signaling network comprises an advanced intelligent network (AIN), and said first and second switching points each comprise an AIN service switching point (SSP).

61.(new) The method of claim 60, wherein said processing element comprises an AIN service control point (SCP).